

U.S. Patent Application Serial No. 10/562,684
Response filed October 27, 2008
Reply to OA dated September 4, 2008

REMARKS

Applicants have labeled Fig.10-14 as "Prior Art" as requested in the Office Action and amend the specification at page 1 and 2 relative to "Patent Document 1" and "Patent Document 2" as suggested.

The claims have been amended to remove the objections and the rejections based on 35 U.S.C. 112, second paragraph, and the specification at page 6 amended as clearly supported in the drawings. No new matter is involved.

Claims 3, 7, 9, 10, 12 and 15, which were withdrawn, have been cancelled. Only claims 1, 2, 4-6, 8, 11, 13, 14, 16 and 17 are being prosecuted herein.

Claim 1, the only independent claim, as now amended, is to a cutting tool for forming a slit on a sheet material, that has a cutting tool body, a grooving blade for forming a slit, and a notching blade for forming an end portion of a slit. The cutting tool body is formed in an arcuate shape, and the grooving blade is formed along either edge along the thickness direction of the cutting tool body. The notching blade is provided with a semi-cylindrical blade edge and an attachment site capable of being detachably attached to one end of the cutting tool body, and the notching blade is attached to one end of the cutting tool body such that an outer curved surface of the blade edge is exposed outside the cutting tool body, and the attachment site is configured such that the blade edge can be

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adjusted in the radial direction of the cutting tool body. Such an arrangement of a cutting tool is not taught or suggested in the prior art.

Claims 1, 2, 4 and 8 have been rejected as anticipated under 35 U.S.C. §102 (b) by Wilcox (U.S. 3,036,486); and claims 1-2, 4-6, 8, 11, 13, 14 and 16-17 are rejected under 35 U.S.C. 103 (a) as obvious in review of a combination of Palamenti (U.S. 3,211,066) and Wilcox. Reconsideration and removal of these rejection are respectfully requested in view of the present amendments to the claims and the following remarks.

The Office Action asserts that Wilcox shows a cutting tool that has a cutting tool body (21, 22, 23), a grooving blade (i.e. 25/25) for forming a slit, and a notching blade (24) for forming an end portion of a slit, where the cutting tool body (21, 22, 23) is formed in the shape of a fan, the grooving blade is formed along either edge in the thickness direction of the cutting tool body, the notching blade is provided with a semi-cylindrical blade edge (back edge of 24), and an attachment site (at the first bolt, 11) capable of being detachably attached to one end of the cutting tool body (via holder, 9), and the notching blade (24) is attached to one end of the cutting tool body in such a manner that an outer curved surface (back surface of 24) of the blade edge is exposed to the outside and the attachment site (11) is configured such that the blade edge can be adjusted in the radial direction of the cutting tool body.

It is also alleged that Wilcox shows an attachment site provided with an oblong hole (slot,

12), and the notching blade attached to the cutting body by inserting a bolt (11), via the oblong hole (12), into a bolt hole formed in one end of the cutting tool body, and the cutting tool body (21, 22, 23) has a notch formed on one end, which forms a back face inclined at an angle of 5° to 30° to an end surface (22.5-degrees), and the notching blade (24) is attached to the back face.

In combining Palamenti and Wilcox, the Office Action asserts that Palamenti shows a cutting tool (11) having a cutting tool body (32/33), a grooving blade (39) for forming a slit, and a notching blade (37) for forming an end portion of a slit, wherein the cutting tool body (32/33) is formed in the shape of a fan, the grooving blade (39) is formed along either edge in the thickness direction of the cutting tool body, the notching blade (37) is provided with a semi-cylindrical blade edge (back edge of 37), and an attachment site (at the first bolt, 34) capable of being detachably attached to one end of the cutting tool body (via holder, 13), and the notching blade (37) is attached to one end of the cutting tool body in such a manner that an outer curved surface (back surface of 37) of the blade edge is exposed to the outside rather than being in contact with one end of the cutting tool body. The Office Action admits that Palamenti does not disclose an attachment site where the blade edge can be adjusted in the radial direction of the cutting tool body, but cites Wilcox, as disclosing an alternative rotary slotting apparatus.

Applicants believe that the Office Action has mischaracterized the teachings of the Wilcox and Palamenti references in relation to the present device.

In Wilcox, there is no notching blade with a semicircular blade edge exposed attached to one end of a cutting tool body. In Wilcox, the semicircular blade edge (24) referred to is not attached

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to one end of a cutting tool body and is not radially adjustable. The portion (24) in Wilcox is a projection with a transverse cutting edge on the trailing slotter segment (23) that contacts with the adjustment end of the scrap cut from the slit and forms the closed end of the slit (Col.2, Lines 33-37). Also, the attachment is not such that any blade edge can be adjusted in a radial direction.

The Palamenti reference also fails to show the exposed semi-cylindrical blade edge of the present device. The item (37) referred to is a tapered space of a male slotting blade that enters a peripheral groove (29) to prevent collision between cutting edge of slotting blade (11) and cutting device (Col.3, Lines 70-74). This is not suggestive of the semi-cylindrical cutting edge in the present device and there is no radial adjustment provided.

In view of the present amendments to the claims and the above remarks, Applicants' claims 1, 2, 4-6, 8, 11, 13, 14, 16 and 17 are believed to be patentable and early action towards allowance thereof is respectfully requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicant's undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

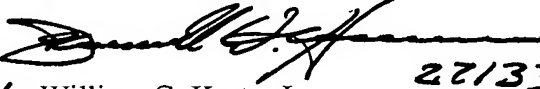
In the event that this paper is not timely filed, the applicant respectfully petitions for an

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appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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PATENT & TRADEMARK OFFICE

Enclosures:

Replacement Sheets of Drawing (Figs. 10-14)